IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

SONRAI MEMORY LTD.,

        Plaintiff,

   v.

KINGSTON TECHNOLOGY COMPANY, INC.
AND KINGSTON TECHNOLOGY
CORPORATION,

        Defendants.

CASE NO. 6:21-cv-01284-ADA

DEFENDANTS' OPENING CLAIM CONSTRUCTION BRIEF

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I.   INTRODUCTION

Pursuant to the Court's Scheduling Order, Defendants Kingston Technology Company, Inc. and Kingston Technology Corporation ("Defendants") respectfully submit their Opening Claim Construction Brief supporting their proposed claim constructions for the disputed terms of U.S. Patent No. 6,920,527 (the "'527 Patent").[1]

II.   AGREED-UPON CONSTRUCTIONS

The parties have agreed upon the following constructions:

Term	Agreed-Upon Construction[2]
"portable memory apparatus" (claim 1)	The preamble is limiting.

III.   CLAIM CONSTRUCTION ANALYSIS

A.   Claim Construction Principles

This Court is well aware of the basic principles of claim construction. To the extent that some more specific aspect of law is at issue with regard to specific terms, that law is cited below in each individual section.

B.   '527 Patent Overview

The '527 Patent is directed to solving issues with prior art portable storage media relating to capacity, speed, ability to modify data, portability, and durability. Ex.1, 1:15-28. To that end, the '527 Patent discloses a portable memory device that has two memories, a controller for managing data transfers, a connector to connect the portable memory device to a computer system, and optionally an internal power source. Ex. 1, 1:40-58. When connected to a computer system

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[1] The Court construed certain terms at issue in this case in an earlier series of cases filed by Sonrai in this Court. However, the Kingston case was transferred to WDTX after those cases began in earnest, and Kingston was not part of that grouping. While Kingston realizes that the Court has already construed certain terms, Kingston raises its positions for the record and asks the Court to reconsider those prior rulings in view of the arguments herein.
[2] See Ex. 6, 4-7-22 email from Sonrai Memory Limited (agreeing claim 1 preamble is limiting).

(*e.g.*, via USB connector), data is transferred within the portable memory device from non-volatile memory to volatile memory to allow faster access to the data by the computer system. Ex. 1, 1:51-54. Data may be copied from volatile memory to non-volatile memory if the user disconnects the portable memory device from the computer system. Ex. 1, 1:54-58.
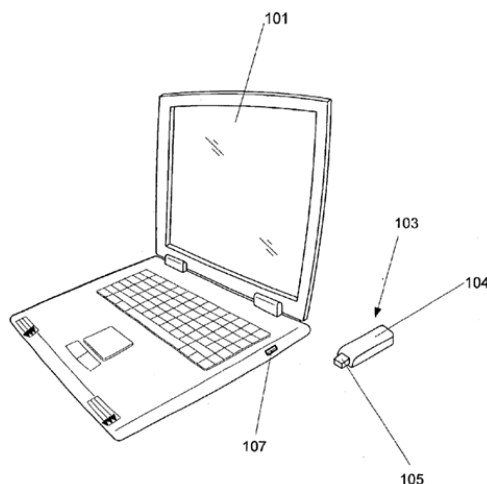
Figure 1
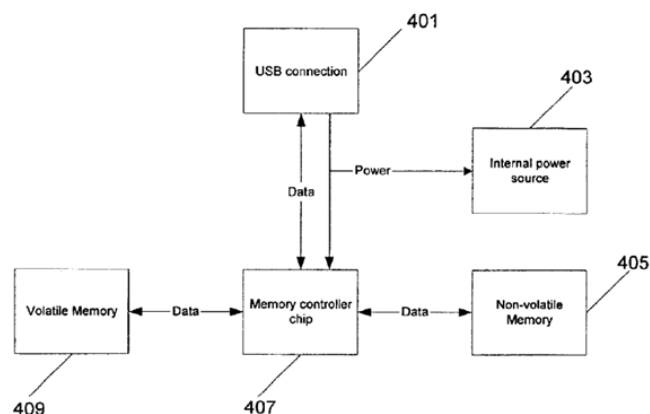
Figure 4

Turning to prosecution before the United States Patent and Trademark Office ("USPTO"), the claims of the '527 Patent were allowed as originally filed, with the first Office Action issuing from the USPTO for the related application providing a Notice of Allowance with an Examiner's Reasons for Allowance stating: "the prior art of record does not teach a portable memory device which connects to a computer system with the portable memory device comprising a memory controller, a volatile memory and a non-volatile memory with the memory controller copying data from the non-volatile memory to the volatile memory for the computer system to access through the connector." Ex. 2, Prosecution History (February 11, 2003 Original Application Claims), (March 10, 2005 Notice of Allowance).

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C. **Level of Ordinary Skill in the Art for the '527 Patent**

A POSITA as of the filing date of the '527 Patent would have had a Bachelor's degree in electrical engineering or an equivalent field and two years of academic or industry experience working with the design of memory devices. Ex. 3, Subramanian Decl., ¶ 48.

D. **Term 1: "a memory controller"/"said memory controller"/"said memory controller chip" ('527 patent, claims 1 and 6)**

Defendants' Proposed Construction	Plaintiff's Proposed Construction
"a memory controller"/"said memory controller"	Plain and ordinary meaning

The last limitation of claim 1 recites "said memory controller chip," but there is no mention of a memory controller chip in claim 1 prior to this recitation. As such, the limitation "said memory controller chip" lacks an antecedent basis. However, claim 1 does recite "a memory controller" and "said memory controller" in earlier limitations of claim 1. In fact, claim 1 recites "said memory controller" multiple times. In contrast, claim 15 recites "a memory controller chip" and "said memory controller chip." Defendants assert that the word "chip" should not have been used with claim 1, and that "said memory controller chip" should be construed consistent with the remainder of the claim to be "said memory controller." This construction would have been the understanding of a POSITA and is consistent with the usage in the specification as well as the patent tenet that a claim term have proper antecedent basis to avoid indefiniteness issues. *See, e.g., In re Downing,* 754 Fed. Appx. 988, 996 (Fed. Cir. 2018) (nonprecedential) ("A claim is indefinite when it contains words or phrases where the meaning is unclear, which may be the result of the lack of an antecedent basis.") (citing *In re Packard*, 751 F.3d 1307, 1310, 1314 (Fed. Cir. 2014); MPEP§ 2173.05(e). Similarly, the term "chip" is misused in dependent claim 6 and should similarly be construed consistent with independent claim 1 to be "said memory controller."

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E.   Term 2: "a computer system" ('527 patent, claims 1 and 15)

Defendants' Proposed Construction	Plaintiff's Proposed Construction
Plain and ordinary meaning including "a set of integrated devices with at least a digital processor, for example, a laptop or a personal computer"	Plain and ordinary meaning

In determining the proper meaning of claim terms, the patent specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips,* 415 F.3d at 1315. However, Courts also may "rely on extrinsic evidence, which consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Phillips*, 415 F.3d at 1317 (internal quotations omitted). Courts are free to consult expert testimony, dictionaries and technical treatises at any time in order to better understand the underlying technology. *Id*. at 1318, 1322-23.

The term "a computer system" should be considered in the context of the claims. Independent claim 1 already recites "a memory controller," and independent claim 15 recites "a memory controller chip."   Defendants' proposed construction is to clarify that the term "a computer system" is more than a controller or a controller chip. In fact, the '527 Patent states "[i]n one embodiment, the portable RAM drive 103 may store data on a non-volatile memory and copy the data to a volatile memory when the portable RAM drive is coupled to a computer system, such as, but not limited to, *a laptop* 101. Other computer systems, such as, but not limited to a *personal computer*, may also be within the scope of the invention." Ex. 1, 2:38-45 (emphases added). And extrinsic evidence emphasizes that a computer system requires

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[a] complete, working computer. The computer system includes *not only the computer but also any software and peripheral devices* that are necessary to make the computer function. Every computer system, for example, requires an operating system.

Ex. 4, Random House Webster's Computer & Internet Dictionary, 3rd ed. (Jan 2000), page 114 (DEF_CC0000053-DEF_CC0000055) (emphasis added).   Accordingly, the term "computer system" should be construed consistent with its plain and ordinary meaning, which should include "a set of integrated devices with at least a digital processor, for example, a laptop or a personal computer."

F.   Term 3: "non-volatile memory" ('527 patent, claims 1 and 15)

Defendants' Proposed Construction	Plaintiff's Proposed Construction
"memory that generally requires power to maintain the memory"	Plain and ordinary meaning

Federal Circuit cases "recognize that a patent specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005). Here, the '527 Patent uses the term "non-volatile memory" in a way that "differs from the meaning it would otherwise possess." The '527 Patent states that "[a] portable storage medium may use *non-volatile memory that generally requires power to maintain the memory*." Ex. 1, 1:32-33 (emphasis added). Notably, this recitation does not appear to be a typographical error, such as an omitted "not." This can be seen be in the choice of grammar. Indeed, if one were to try and change the meaning of this definition, one would have to add two words "does" and "not" and change the tense of "requires" to "require." The sheer degree of edits required to change the meaning from what is written shows that this definitional statement was intentional and not an error, as it is unlikely that the drafter would have made three separate grammatical or typographical errors in a single sentence. This is especially the case, as this patent does not include a raft of

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typographical errors – making it less likely that three errors would have all accidentally happened in this single sentence. Nor is it likely that the drafter intended to refer to the volatile memory rather than the non-volatile memory, as the volatile memory is not introduced until the end of the paragraph and then only to distinguish it as being faster than the non-volatile memory discussed before.

Moreover, although the term "non-volatile memory" is used repeatedly throughout the specification, the '527 Patent does not provide any examples of non-volatile memory that could arguably be used to diminish this express statement and this specific definition. In construing claim terms, "[a]n inventor's intention, as expressed in the patent specification, is regarded as dispositive." *Phillips*, 415 F.3d at 1316. Accordingly, "non-volatile memory" should be construed, as expressly stated in the '527 Patent, as "memory that generally requires power to maintain the memory" as defined in the Specification

Defendants expect that Plaintiff will argue that the stated meaning of "non-volatile memory" is inconsistent with various embodiments of the patent and, thus, must be an error. As an initial point, to the extent that there is a conflict, that conflict should be resolved in the favor of the definition statement rather than any particular embodiments. However, the majority of the embodiments in the patent describe the portable RAM drive as including a power source that could maintain power to the various memories. In the one embodiment that is described as lacking in internal power source, the wording of the definitional statement becomes significant. Notably, the definitional statement says that the memory generally but not exclusively requires power to maintain the memory. An embodiment without any type of internal power source would fit this requirement, as it would use power to maintain the memory in other contexts.

G.   Term 4: "when said connector couples said portable memory apparatus to said computer system" (claim 1)

Defendants' Proposed Construction	Plaintiff's Proposed Construction
"in response to the portable memory apparatus being plugged into the computer system by the connector"	Plain and ordinary meaning

The '527 Patent discloses that "data from non-volatile memory may be transferred to the volatile memory for faster access by the computer system." Ex. 1, 1:51-54; 4:3-5; abstract. While Defendants appreciate that the Court may be inclined to not construe this term and leave it as plain meaning, there is a clear dispute between the parties on the meaning of this term. A construction would make discovery more efficient for the parties and the expert and avoid potential future motion practice.

The fundamental question here is whether this term refers to a particular point in time or anytime that the portable device is connected to a computer system – especially replacing the "when" it is plugged in with a 'while' it is plugged in. In asserting that the plain meaning should apply, Plaintiff is seeking to remove this term from its surrounding context and from the larger context of the claim. If, as Plaintiff proposes, the term should be construed to mean *while* instead of *when,* the claim would essentially require near continuous copying of data between the volatile and non-volatile memories and between the computer system and the memories. This is the case because the claim requires that these copy operations take place when said connector couples said portable memory apparatus to said computer system. If when means while, the memory controller chip should be copying data whenever the portable memory apparatus is coupled to the computer system.

Defendants' construction, on the other hand, rightly links the copying of the data between the memories and the computer system to the act of coupling. Indeed, the specification repeatedly

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states that this transfer occurs in response to coupling the portable memory device to the computer system (*see, e.g.*, Ex. 1, 1:51-54 ("When the portable RAM drive is plugged into the computer system, the data from the non-volatile memory may be transferred to the volatile memory for faster access by the computer system.")), which makes sense as the purpose of the transfer is to allow "faster access by the computer system." Ex. 1, 1:51-54; 4:3-5; abstract.

Notably, Defendants' construction is not intended to create some impossible standard where the claimed copying must be immediately upon coupling with absolutely no intervening events. As the specification explains, the copying is in response to the coupling - not infinitesimally afterwards. *See, e.g.*, Ex. 1, 3:67-4:11 (delaying transfer from non-volatile memory to volatile memory "until the internal power source in the portable RAM drive has recharged enough (with power delivered through the USB connection) to transfer data from the volatile memory to the non-volatile memory when the portable RAM drive is unplugged"). Accordingly, in view of the above discussion, "when said connector couples said portable memory apparatus to said computer system" should be construed to mean "in response to the portable memory apparatus being plugged into the computer system by the connector."

H.   Term 5: "transfers" (claim 6)

Defendants' Proposed Construction	Plaintiff's Proposed Construction
Plain and ordinary meaning including "copies"	Plain and ordinary meaning

The '527 Patent states that "[a]s used herein, 'transfer' may refer to copying data to another memory medium without erasing data in an originating memory medium or making changes to data stored in another memory medium to reflect changes in the data on the originating memory medium. Other transfers are also contemplated." Ex. 1, 3:62-67. Accordingly, as patentee has chosen to be his own lexicographer through this statement, to the extent not encompassed within

the plain and ordinary meaning of the term, "transfers" and variations thereof should be construed

to include "copying". *Phillips*, 415 F.3d at 1316 ("the inventor's lexicography governs").

     I.   **Term 6: "wherein said memory controller chip transfers said non-volatile memory with data written to said volatile memory from said computer system while said portable memory apparatus is coupled to said computer system" (claim 6)**

Defendants' Proposed Construction	Plaintiff's Proposed Construction
Indefinite	Plain and ordinary meaning

Claim 6 suffers from the fact that it recites an impossibility—specifically, by its plain

language, claim 6 requires that the "memory controller chip transfers said non-volatile memory."

(emphasis added). Non-volatile memory is a physical component of an apparatus and therefore

cannot be "transferred" by a memory controller chip. *See* Ex. 3, Subramanian Decl. at ¶ 56. Claims

that require an impossibility are "indefinite as a matter of law under § 112, paragraph 2."

Synchronoss Techs. v. Dropbox, Inc., 987 F.3d 1358, 1366-67 (Fed. Cir. 2021) (claim requiring a

"digital media file" to contain "a directory of digital media files" indefinite as "nonsensical" and

requiring an impossibility); *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir.

2004) ("Claims must be construed as they are written, not as the patentees wish they had written

it.").

In addition, any attempt to alter claim 6 to overcome the physical impossibility by reference

to the patent specification still results in claim 6 being indefinite because the altered claim 6 is

open to at least two mutually exclusive interpretations. *California Inst. of Tech. v. Hughes*

Commc'ns Inc., 35 F. Supp. 3d 1176, 1181 (C.D. Cal. 2014) ("multiple equally plausible but

materially dissimilar constructions of a claim term… fail the 'reasonable certainty' standard, even

if none of the competing constructions are 'insolubly ambiguous.'"); *Nautilus, Inc. v. Biosig*

Instruments, Inc., 572 U.S. 898, 910 (2014). The claim language "transfers said non-volatile

memory with data written to said volatile memory from said computer system" does not inform a POSITA where data is being transferred from or where it is being transferred to. Rewriting the limitation by adding (and arbitrarily assigning the order of) the prepositions "to" and "from" to the claim language results in multiple interpretations. For example, the limitation may be altered to mean that "the memory controller transfers data from the nonvolatile memory to the volatile memory so that it can be accessed by the host computer." Another possible rewrite is to switch the prepositions to mean the opposite, i.e., that "the memory controller transfers data to the non-volatile memory from the volatile memory." *See, e.g.*, '527 dependent patent claim 7 ("data stored in said volatile memory is being transferred to said non-volatile memory."). Because it cannot be known with reasonable certainty which of these exclusive interpretations the patentee intended, the limitation is indefinite.[3] *See also, E*x. 3, Subramanian Decl., ¶¶ 57-58.

IV.   CONCLUSION

For the reasons presented above and in the exhibits, Defendants respectfully requests the Court adopt Defendants' proposed construction.

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[3] Notwithstanding the recited physical impossibility and the need to rewrite the claim, review of the other claims arguably support interpreting the limitation as transferring data "*to* the non-volatile memory *from* the volatile memory." Claims 7 and 8 support this meaning as they depend from Claim 6 and both recite "data stored in said volatile memory is being transferred to said non-volatile memory." Ex. 1, 6:59-7:2. Moreover, the alternate interpretation (i.e., transferring data "*from* the nonvolatile memory *to* the volatile memory") does not further limit Claim 1, which recites "said memory controller chip copies data from said non-volatile memory to said volatile memory" (Ex. 1, 6:34-38), in violation of the requirements of 37 C.F.R. § 1.75. *See* 37 C.F.R. § 1.75 ("One or more claims may be presented in dependent form, referring back to *and further limiting* another claim or claims in the same application.") (emphasis added). Accordingly, to the extent that the Court determines that the limitation is not indefinite, it should be construed to mean "wherein said memory controller chip transfers *to* said non-volatile memory ~~with~~ data written to said volatile memory from said computer system while said portable memory apparatus is coupled to said computer system."

Dated: April 14, 2021   Respectfully submitted,

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<u>CERTIFICATE OF SERVICE</u>

The undersigned hereby certifies that a true and correct copy of the above and foregoing

document has been served on April 14, 2022, to all counsel of record who are deemed to have

consented to electronic service via the Court's CM/ECF system.

/s/ David M. Hoffman
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